

ABSTRACT OF THE DISCLOSURE

Apparatus and a method are provided for isolating an electrostatic sprayer from an electrically grounded coating product distribution circuit connected thereto.

5 The apparatus includes an electrostatic sprayer carried by a maneuverable robot arm, the sprayer capable of spraying an electrically conductive coating product such as water-based paint onto a workpiece passing in adjacent proximity thereby, on command. The coating product is

10 supplied from a remote source of supply through at least one distribution circuit connected to the sprayer. The apparatus includes therein, carried by the robot arm, an electrically insulative storage tank for the coating product in valved fluid communication with the sprayer.

15 The insulated storage tank is connected to and positioned downstream from a length of electrically insulative supply conduit connected to the distribution circuit and also carried by the robot arm. This conduit includes a cleaning mechanism for cleaning a portion, including all,

20 of this length of supply conduit, in situ, after filling of the storage tank with coating product and before spraying. In this way, substantially all of the

25 conductive coating product is removed from the portion of supply conduit, thereby completely isolating the sprayer electrically from the distribution circuit. The cleaning

mechanism is preferably a chemically resistant plunger fitted in the conduit and adapted to reciprocally traverse the length of the conduit on command, effectively wiping it clean of coating product and thereby galvanically isolating the sprayer from the distribution circuit during the actual spraying operation.